Table of Contents

2	AC	KNOWLEDGMENTS	
3	TAE	BLE OF CONTENTS	V
4	LIS	Γ OF TABLES, FIGURES, AND BOXES	VIII
5	Table	es ·	viii
6	Figur	es	xvi
7	Boxe	s	xviii
8	EXE	CUTIVE SUMMARY	ES-1
9	Back	ground Information	ES-2
10	Rece	nt Trends in U.S. Greenhouse Gas Emissions and Sinks	ES-4
11	Over	view of Sector Emissions and Trends	ES-12
12	Othe	Information	ES-15
13	1.	INTRODUCTION	1-1
14	1.1.	Background Information	1-2
15	1.2.	Institutional Arrangements	1-9
16	1.3.	Inventory Process	1-9
17	1.4.	Methodology and Data Sources	1-11
18	1.5.	Key Categories	1-12
19	1.6.	Quality Assurance and Quality Control (QA/QC)	1-14
20	1.7.	Uncertainty Analysis of Emission Estimates	1-15
21	1.8.	Completeness	1-16
22	1.9.	Organization of Report	1-16
23	2.	TRENDS IN GREENHOUSE GAS EMISSIONS	2-1
24	2.1.	Recent Trends in U.S. Greenhouse Gas Emissions	2-1
25	2.2.	Emissions by Economic Sector	2-16
26	2.3.	Indirect Greenhouse Gas Emissions (CO, NOx, NMVOCs, and SO ₂)	2-26
27	3.	ENERGY	3-1
28	3.1.	Carbon Dioxide Emissions from Fossil Fuel Combustion (IPCC Source Category 1A)	3-3
29	3.2.	Carbon Emitted from Non-Energy Uses of Fossil Fuels (IPCC Source Category 1A)	3-19
30	3.3.	Stationary Combustion (excluding CO ₂) (IPCC Source Category 1A)	3-24
31	3.4.	Mobile Combustion (excluding CO ₂) (IPCC Source Category 1A)	3-29
32	3.5.	Coal Mining (IPCC Source Category 1B1a)	3-38
33	3.6.	Abandoned Underground Coal Mines (IPCC Source Category 1B1a)	3-41
34	3.7.	Natural Gas Systems (IPCC Source Category 1B2b)	3-44

1	3.8.	Petroleum Systems (IPCC Source Category 1B2a)	3-48
2	3.9.	Municipal Solid Waste Combustion (IPCC Source Category 1A5)	3-53
3	3.10.	Energy Sources of Indirect Greenhouse Gas Emissions	3-50
4	3.11.	International Bunker Fuels (IPCC Source Category 1: Memo Items)	3-57
5	3.12.	Wood Biomass and Ethanol Consumption (IPCC Source Category 1A)	3-62
6	4.	INDUSTRIAL PROCESSES	4-1
7	4.1.	Iron and Steel Production (IPCC Source Category 2C1)	4-4
8	4.2.	Cement Manufacture (IPCC Source Category 2A1)	4-8
9	4.3.	Lime Manufacture (IPCC Source Category 2A2)	4-10
10	4.4.	Ammonia Manufacture (IPCC Source Category 2B1) and Urea Consumption	4-14
11	4.5.	Limestone and Dolomite Use (IPCC Source Category 2A3)	4-17
12	4.6.	Soda Ash Manufacture and Consumption (IPCC Source Category 2A4)	4-20
13	4.7.	Titanium Dioxide Production (IPCC Source Category 2B5)	4-23
14	4.8.	Carbon Dioxide Consumption (IPCC Source Category 2B5)	4-25
15	4.9.	Ferroalloy Production (IPCC Source Category 2C2)	4-2
16	4.10.	Phosphoric Acid Production (IPCC Source Category 2B5)	4-30
17	4.11.	Zinc Production (IPCC Source Category 2C5)	4-33
18	4.12.	Lead Production (IPCC Source Category 2C5)	4-36
19	4.13.	Petrochemical Production (IPCC Source Category 2B5)	4-38
20	4.14.	Silicon Carbide Production (IPCC Source Category 24) and Consumption	4-4
21	4.15.	Nitric Acid Production (IPCC Source Category 2B2)	4-43
22	4.16.	Adipic Acid Production (IPCC Source Category 2B3)	4-45
23	4.17.	Substitution of Ozone Depleting Substances (IPCC Source Category 2F)	4-48
24	4.18.	HCFC-22 Production (IPCC Source Category 2E1)	4-5
25	4.19.	Electrical Transmission and Distribution (IPCC Source Category 2F7)	4-53
26	4.20.	Semiconductor Manufacture (IPCC Source Category 2F6)	4-58
27	4.21.	Aluminum Production (IPCC Source Category 2C3)	4-63
28	4.22.	Magnesium Production and Processing (IPCC Source Category 2C4)	4-6
29	4.23.	Industrial Sources of Indirect Greenhouse Gases	4-7
30	5.	SOLVENT AND OTHER PRODUCT USE	5- 1
31	5.1.	Nitrous Oxide from Product Uses (IPCC Source Category 3D)	5-1
32	5.2.	Indirect Greenhouse Gas Emissions from Solvent Use	5-4
33	6.	AGRICULTURE	6-1
34	6.1.	Enteric Fermentation (IPCC Source Category 4A)	6-2
35	6.2.	Manure Management (IPCC Source Category 4B)	6-7
36	6.3.	Rice Cultivation (IPCC Source Category 4C)	6-13

1	6.4.	Agricultural Soil Management (IPCC Source Category 4D)	6-18
2	6.5.	Field Burning of Agricultural Residues (IPCC Source Category 4F)	6-30
3	7.	LAND USE, LAND-USE CHANGE, AND FORESTRY	7-1
4	7.1.	Representation of the U.S. Land Base	7-4
5	7.2.	Forest Land Remaining Forest Land	7-11
6	7.3.	Land Converted to Forest Land (IPCC Source Category 5A2)	7-24
7	7.4.	Cropland Remaining Cropland (IPCC Source Category 5B1)	7-24
8	7.5.	Land Converted to Cropland (IPCC Source Category 5B2)	7-36
9	7.6.	Grassland Remaining Grassland (IPCC Source Category 5C1)	7-40
10	7.7.	Land Converted to Grassland (IPCC Source Category 5C2)	7-44
11	7.8.	Settlements Remaining Settlements	7-48
12	7.9.	Land Converted to Settlements (Source Category 5E2)	7-54
13	7.10.	Other (IPCC Source Category 5G)	7-54
14	8.	WASTE	8-1
15	8.1.	Landfills (IPCC Source Category 6A1)	8-2
16	8.2.	Wastewater Treatment (IPCC Source Category 6B)	8-6
17	8.3.	Composting (IPCC Source Category 6D)	8-17
18	8.4.	Waste Sources of Indirect Greenhouse Gases	8-18
19	9.	OTHER	9-1
20	10.	RECALCULATIONS AND IMPROVEMENTS	10-1
21	11.	REFERENCES	11-1

22

vii

List of Tables, Figures, and Boxes

2	Tables	
3	Table ES-1: Global Warming Potentials (100-Year Time Horizon) Used in this Report	ES-3
4	Table ES-2: Recent Trends in U.S. Greenhouse Gas Emissions and Sinks (Tg CO ₂ Eq.)	ES-4
5	Table ES-3: CO ₂ Emissions from Fossil Fuel Combustion by Fuel Consuming End-Use Sector (Tg CO ₂ Eq	.) ES-8
6 7	Table ES-4: Recent Trends in U.S. Greenhouse Gas Emissions and Sinks by Chapter/IPCC Sector (Tg CO ₂	Eq.)ES-
8	Table ES-5: Net CO ₂ Flux from Land Use, Land-Use Change, and Forestry (Tg CO ₂ Eq.)	ES-14
9	Table ES-6: Emissions from Land Use, Land-Use Change, and Forestry (Tg CO ₂ Eq.)	ES-15
10	Table ES-7: U.S. Greenhouse Gas Emissions Allocated to Economic Sectors (Tg CO ₂ Eq.)	ES-16
11 12	Table ES-8: U.S Greenhouse Gas Emissions by Economic Sector with Electricity-Related Emissions Distri (Tg CO ₂ Eq.)	buted ES-17
13	Table ES-9: Recent Trends in Various U.S. Data (Index 1990 = 100)	ES-17
14	Table ES-10: Emissions of NO _x , CO, NMVOCs, and SO ₂ (Gg)	ES-18
15 16	Table 1-1: Global Atmospheric Concentration, Rate of Concentration Change, and Atmospheric Lifetime (Selected Greenhouse Gases	years) of 1-3
17	Table 1-2: Global Warming Potentials and Atmospheric Lifetimes (Years) Used in this Report	1-7
18	Table 1-3: Comparison of 100-Year GWPs	1-8
19	Table 1-4: Key Categories for the United States (1990-2006) Based on Tier 1 Approach	1-12
20	Table 1-5. Estimated Overall Inventory Quantitative Uncertainty (Tg CO ₂ Eq. and Percent)	1-15
21	Table 1-6: IPCC Sector Descriptions	1-16
22	Table 1-7: List of Annexes	1-17
23	Table 2-1: Recent Trends in U.S. Greenhouse Gas Emissions and Sinks (Tg CO ₂ Eq.)	2-3
24	Table 2-2: Recent Trends in U.S. Greenhouse Gas Emissions and Sinks (Gg)	2-5
25	Table 2-3: Recent Trends in U.S. Greenhouse Gas Emissions and Sinks by Chapter/IPCC Sector (Tg CO ₂ I	Eq.) 2-7
26	Table 2-4: Emissions from Energy (Tg CO ₂ Eq.)	2-8
27	Table 2-5: CO ₂ Emissions from Fossil Fuel Combustion by End-Use Sector (Tg CO ₂ Eq.)	2-9
28	Table 2-6: Emissions from Industrial Processes (Tg CO ₂ Eq.)	2-11
29	Table 2-7: N ₂ O Emissions from Solvent and Other Product Use (Tg CO ₂ Eq.)	2-12
30	Table 2-8: Emissions from Agriculture (Tg CO ₂ Eq.)	2-13
31	Table 2-9: Net CO ₂ Flux from Land Use, Land-Use Change, and Forestry (Tg CO ₂ Eq.)	2-14
32	Table 2-10: Emissions from Land Use, Land-Use Change, and Forestry (Tg CO ₂ Eq.)	2-15
33	Table 2-11: Emissions from Waste (Tg CO ₂ Eq.)	2-16
34	Table 2-12: U.S. Greenhouse Gas Emissions Allocated to Economic Sectors (Tg CO ₂ Eq. and Percent of To	otal in

Table 2-13: Electricity Generation-Related Greenhouse Gas Emissions (Tg CO₂ Eq.)

2-17

2-20

35

36

1 2	Table 2-14: U.S Greenhouse Gas Emissions by Economic Sector and Gas with Electricity-Related Emission Distributed (Tg CO ₂ Eq.) and Percent of Total in 2005	s 2-21
3	Table 2-15: Transportation-Related Greenhouse Gas Emissions (Tg CO ₂ Eq.)	2-22
4	Table 2-16: Recent Trends in Various U.S. Data (Index 1990 = 100)	2-26
5	Table 2-17: Emissions of NO _x , CO, NMVOCs, and SO ₂ (Gg)	2-27
6	Table 3-1: CO ₂ , CH ₄ , and N ₂ O Emissions from Energy (Tg CO ₂ Eq.)	3-1
7	Table 3-2: CO ₂ , CH ₄ , and N ₂ O Emissions from Energy (Gg)	3-2
8	Table 3-3: CO ₂ Emissions from Fossil Fuel Combustion by Fuel Type and Sector (Tg CO ₂ Eq.)	3-3
9 10	Table 3-4: Annual Change in CO ₂ Emissions from Fossil Fuel Combustion for Selected Fuels and Sectors (TEq. and Percent)	Гg CO ₂ 3-4
11	Table 3-5: CO ₂ Emissions from International Bunker Fuels (Tg CO ₂ Eq.)*	3-7
12	Table 3-6: CO ₂ Emissions from Fossil Fuel Combustion by End-Use Sector (Tg CO ₂ Eq.)	3-7
13	Table 3-7: CO ₂ Emissions from Fossil Fuel Combustion in Transportation End-Use Sector (Tg CO ₂ Eq.) ^a	3-8
14	Table 3-8: Carbon Intensity from Direct Fossil Fuel Combustion by Sector (Tg CO ₂ Eq./QBtu)	3-15
15	Table 3-9: Carbon Intensity from all Energy Consumption by Sector (Tg CO ₂ Eq./QBtu)	3-16
16 17	Table 3-10: Tier 2 Quantitative Uncertainty Estimates for CO ₂ Emissions from Energy-related Fossil Fuel Combustion by Fuel Type and Sector (Tg CO ₂ Eq. and Percent)	3-18
18	Table 3-11: CO ₂ Emissions from Non-Energy Use Fossil Fuel Consumption (Tg CO ₂ Eq.)	3-19
19	Table 3-12: Adjusted Consumption of Fossil Fuels for Non-Energy Uses (TBtu)	3-20
20	Table 3-13: 2006 Adjusted Non-Energy Use Fossil Fuel Consumption, Storage, and Emissions	3-21
21 22	Table 3-14: Tier 2 Quantitative Uncertainty Estimates for CO ₂ Emissions from Non-Energy Uses of Fossil F (Tg CO ₂ Eq. and Percent)	Fuels 3-22
23 24	Table 3-15: Tier 2 Quantitative Uncertainty Estimates for Storage Factors of Non-Energy Uses of Fossil Fue (Percent)	els 3-23
25	Table 3-16: CH ₄ Emissions from Stationary Combustion (Tg CO ₂ Eq.)	3-24
26	Table 3-17: N ₂ O Emissions from Stationary Combustion (Tg CO ₂ Eq.)	3-25
27	Table 3-18: CH ₄ Emissions from Stationary Combustion (Gg)	3-25
28	Table 3-19: N ₂ O Emissions from Stationary Combustion (Gg)	3-26
29 30	Table 3-20: Tier 2 Quantitative Uncertainty Estimates for CH ₄ and N ₂ O Emissions from Energy-Related Sta Combustion, Including Biomass (Tg CO ₂ Eq. and Percent)	tionary 3-28
31	Table 3-21: CH ₄ Emissions from Mobile Combustion (Tg CO ₂ Eq.)	3-30
32	Table 3-22: N ₂ O Emissions from Mobile Combustion (Tg CO ₂ Eq.)	3-30
33	Table 3-23: CH ₄ Emissions from Mobile Combustion (Gg)	3-31
34	Table 3-24: N ₂ O Emissions from Mobile Combustion (Gg)	3-31
35 36	Table 3-25. Tier 2 Quantitative Uncertainty Estimates for CH ₄ and N ₂ O Emissions from Mobile Sources (Tg Eq. and Percent)	g CO ₂ 3-35
37	Table 3-26: CH ₄ Emissions from Coal Mining (Tg CO ₂ Eq.)	3-38
38	Table 3-27: CH ₄ Emissions from Coal Mining (Gg)	3-38
39	Table 3-28: Coal Production (Thousand Metric Tons)	3-39

1	Table 3-29: Ther 2 Quantitative Uncertainty Estimates for CH ₄ Emissions from Coal Mining (Tg CO ₂ Eq. and	
2	Percent)	3-40
3	Table 3-30: CH ₄ Emissions from Abandoned Coal Mines (Tg CO ₂ Eq.)	3-41
4	Table 3-31: CH ₄ Emissions from Abandoned Coal Mines (Gg)	3-42
5 6	Table 3-32: Number of gassy abandoned mines occurring in U.S. basins grouped by class according to post-abandonment state	3-43
7 8	Table 3-33: Tier 2 Quantitative Uncertainty Estimates for CH ₄ Emissions from Abandoned Underground Co Mines (Tg CO ₂ Eq. and Percent)	al 3-44
9	Table 3-34. CH ₄ Emissions from Natural Gas Systems (Tg CO ₂ Eq.)*	3-45
10	Table 3-35. CH ₄ Emissions from Natural Gas Systems (Gg)*	3-46
11	Table 3-36. Non-combustion CO ₂ Emissions from Natural Gas Systems (Tg CO ₂ Eq.)	3-46
12	Table 3-37. Non-combustion CO ₂ Emissions from Natural Gas Systems (Gg)	3-46
13 14	Table 3-38: Tier 2 Quantitative Uncertainty Estimates for CH ₄ and Non-combustion CO ₂ Emissions from Na Gas Systems (Tg CO ₂ Eq. and Percent)	atural 3-47
15	Table 3-39: CH ₄ Emissions from Petroleum Systems (Tg CO ₂ Eq.)	3-49
16	Table 3-40: CH ₄ Emissions from Petroleum Systems (Gg)	3-49
17	Table 3-41: CO ₂ Emissions from Petroleum Systems (Tg CO2 Eq.)	3-50
18	Table 3-42: CO ₂ Emissions from Petroleum Systems (Gg)	3-50
19 20	Table 3-43: Tier 2 Quantitative Uncertainty Estimates for CH ₄ Emissions from Petroleum Systems (Tg CO ₂ Percent)	Eq. and 3-51
21	Table 3-44: Emissions of CO ₂ from EOR Operations and Pipelines (Tg CO ₂ Eq.)	3-53
22	Table 3-45: Emissions of CO ₂ from EOR Operations and Pipelines (Gg)	3-53
23	Table 3-46: CO ₂ and N ₂ O Emissions from Municipal Solid Waste Combustion (Tg CO ₂ Eq.)	3-54
24	Table 3-47: CO ₂ and N ₂ O Emissions from Municipal Solid Waste Combustion (Gg)	3-54
25	Table 3-48: Municipal Solid Waste Generation (Metric Tons) and Percent Combusted	3-55
26 27	Table 3-49: Tier 2 Quantitative Uncertainty Estimates for CO ₂ and N ₂ O from Municipal Solid Waste Combu (Tg CO ₂ Eq. and Percent)	stion 3-56
28	Table 3-50: NO _x , CO, and NMVOC Emissions from Energy-Related Activities (Gg)	3-56
29	Table 3-51: CO ₂ , CH ₄ , and N ₂ O Emissions from International Bunker Fuels (Tg CO ₂ Eq.)	3-58
30	Table 3-52: CO ₂ , CH ₄ and N ₂ O Emissions from International Bunker Fuels (Gg)	3-58
31	Table 3-53: Aviation Jet Fuel Consumption for International Transport (Million Gallons)	3-60
32	Table 3-54: Marine Fuel Consumption for International Transport (Million Gallons)	3-60
33	Table 3-55: CO ₂ Emissions from Wood Consumption by End-Use Sector (Tg CO ₂ Eq.)	3-62
34	Table 3-56: CO ₂ Emissions from Wood Consumption by End-Use Sector (Gg)	3-62
35	Table 3-57: CO ₂ Emissions from Ethanol Consumption (Tg CO ₂ Eq.)	3-62
36	Table 3-58: CO ₂ Emissions from Ethanol Consumption (Gg)	3-63
37	Table 3-59: Woody Biomass Consumption by Sector (Trillion Btu)	3-63
38	Table 3-60: Ethanol Consumption (Trillion Btu)	3-63

1	Table 4-1: Emissions from Industrial Processes (Tg CO ₂ Eq.)	4-1
2	Table 4-2: Emissions from Industrial Processes (Gg)	4-2
3	Table 4-3: CO ₂ and CH ₄ Emissions from Iron and Steel Production (Tg CO ₂ Eq.)	4-5
4	Table 4-4: CO ₂ and CH ₄ Emissions from Iron and Steel Production (Gg)	4-5
5	Table 4-5: CH ₄ Emission Factors for Coal Coke, Sinter, and Pig Iron Production (g/kg)	4-6
6 7	Table 4-6: Production and Consumption Data for the Calculation of CO ₂ and CH ₄ Emissions from Iron a Production (Thousand Metric Tons)	and Steel 4-7
8 9	Table 4-7: Tier 2 Quantitative Uncertainty Estimates for CO ₂ and CH ₄ Emissions from Iron and Steel Pr (Tg. CO ₂ Eq. and Percent)	oduction 4-7
10	Table 4-8: CO ₂ Emissions from Cement Production (Tg CO ₂ Eq. and Gg)	4-8
11	Table 4-9: Clinker Production (Gg)	4-9
12 13	Table 4-10: Tier 2 Quantitative Uncertainty Estimates for CO ₂ Emissions from Cement Manufacture (Tg and Percent)	g CO ₂ Eq. 4-10
14	Table 4-11: CO ₂ Emissions from Lime Manufacture (Tg CO ₂ Eq. and Gg)	4-10
15 16	Table 4-12: High-Calcium- and Dolomitic-Quicklime, High-Calcium- and Dolomitic-Hydrated, and Dea Dolomite Lime Production (Gg)	ad-Burned- 4-12
17	Table 4-13: Adjusted Lime Production ^a (Gg)	4-12
18 19	Table 4-14: Tier 2 Quantitative Uncertainty Estimates for CO ₂ Emissions from Lime Manufacture (Tg C Percent)	CO ₂ Eq. and 4-13
20	Table 4-15: CO ₂ Emissions from Ammonia Manufacture and Urea Consumption (Tg CO ₂ Eq.)	4-14
21	Table 4-16: CO ₂ Emissions from Ammonia Manufacture and Urea Consumption (Gg)	4-15
22	Table 4-17: Ammonia Production, Urea Production, Urea Net Imports, and Urea Exports (Gg)	4-16
23 24	Table 4-18: Tier 2 Quantitative Uncertainty Estimates for CO ₂ Emissions from Ammonia Manufacture a Consumption (Tg CO ₂ Eq. and Percent)	and Urea 4-16
25	Table 4-19: CO ₂ Emissions from Limestone & Dolomite Use (Tg CO ₂ Eq.)	4-17
26	Table 4-20: CO ₂ Emissions from Limestone & Dolomite Use (Gg)	4-18
27	Table 4-21: Limestone and Dolomite Consumption (Thousand Metric Tons)	4-19
28	Table 4-22: Dolomitic Magnesium Metal Production Capacity (Metric Tons)	4-19
29 30	Table 4-23: Tier 2 Quantitative Uncertainty Estimates for CO ₂ Emissions from Limestone and Dolomite CO ₂ Eq. and Percent)	Use (Tg 4-20
31	Table 4-24: CO ₂ Emissions from Soda Ash Manufacture and Consumption (Tg CO ₂ Eq.)	4-21
32	Table 4-25: CO ₂ Emissions from Soda Ash Manufacture and Consumption (Gg)	4-21
33	Table 4-26: Soda Ash Manufacture and Consumption (Gg)	4-22
34 35	Table 4-27: Tier 2 Quantitative Uncertainty Estimates for CO ₂ Emissions from Soda Ash Manufacture a Consumption (Tg CO ₂ Eq. and Percent)	nd 4-22
36	Table 4-28: CO ₂ Emissions from Titanium Dioxide (Tg CO ₂ Eq. and Gg)	4-23
37	Table 4-29: Titanium Dioxide Production (Gg)	4-24
38 39	Table 4-30: Tier 2 Quantitative Uncertainty Estimates for CO ₂ Emissions from Titanium Dioxide Produc CO ₂ Eq. and Percent)	ction (Tg 4-25
40	Table 4-31: CO ₂ Emissions from CO ₂ Consumption (Tg CO ₂ Eq. and Gg)	4-26

2	Table 4-32: CO ₂ Production (Gg CO ₂) and the Percent Used for Non-EOR Applications for Jackson Dome an Bravo Dome	4-26
3 4	Table 4-33: Tier 2 Quantitative Uncertainty Estimates for CO ₂ Emissions from CO ₂ Consumption (Tg CO ₂ Eq Percent)	and 4-27
5	Table 4-34: CO ₂ and CH ₄ Emissions from Ferroalloy Production (Tg CO ₂ Eq.)	4-28
6	Table 4-35: CO ₂ and CH ₄ Emissions from Ferroalloy Production (Gg)	4-28
7	Table 4-36: Production of Ferroalloys (Metric Tons)	4-28
8 9	Table 4-37: Tier 2 Quantitative Uncertainty Estimates for CO ₂ Emissions from Ferroalloy Production (Tg CO and Percent)	Eq. 4-29
10	Table 4-38: CO ₂ Emissions from Phosphoric Acid Production (Tg CO ₂ Eq. and Gg)	4-31
11	Table 4-39: Phosphate Rock Domestic Production, Exports, and Imports (Gg)	4-31
12	Table 4-40: Chemical Composition of Phosphate Rock (percent by weight)	4-32
13 14	Table 4-41: Tier 2 Quantitative Uncertainty Estimates for CO ₂ Emissions from Phosphoric Acid Production (CO ₂ Eq. and Percent)	g 4-33
15	Table 4-42: CO ₂ Emissions from Zinc Production (Tg CO ₂ Eq. and Gg)	4-33
16	Table 4-43: Zinc Production (Metric Tons)	4-35
17 18	Table 4-44: Tier 2 Quantitative Uncertainty Estimates for CO ₂ Emissions from Zinc Production (Tg CO ₂ Eq. Percent)	nd 4-36
19	Table 4-45: CO ₂ Emissions from Lead Production (Tg CO ₂ Eq. and Gg)	4-36
20	Table 4-46: Lead Production (Metric Tons)	4-37
21 22	Table 4-47: Tier 2 Quantitative Uncertainty Estimates for CO_2 Emissions from Lead Production (Tg CO_2 Eq. Percent)	and 4-38
23	Table 4-48: CO ₂ and CH ₄ Emissions from Petrochemical Production (Tg CO ₂ Eq.)	4-38
24	Table 4-49: CO ₂ and CH ₄ Emissions from Petrochemical Production (Gg)	4-39
25	Table 4-50: Production of Selected Petrochemicals (Thousand Metric Tons)	4-39
26 27	Table 4-51: Carbon Black Feedstock (Primary Feedstock) and Natural Gas Feedstock (Secondary Feedstock) Consumption (Thousand Metric Tons)	4-40
28 29	$\label{thm:condition} Table~4-52: Tier~2~Quantitative~Uncertainty~Estimates~for~CH_4~Emissions~from~Petrochemical~Production~and~Emissions~from~Carbon~Black~Production~(Tg~CO_2~Eq.~and~Percent)$	CO ₂ 4-40
30	Table 4-53: CO ₂ and CH ₄ Emissions from Silicon Carbide Production and Consumption (Tg CO ₂ Eq.)	4-41
31	Table 4-54: CO ₂ and CH ₄ Emissions from Silicon Carbide Production and Consumption (Gg)	4-41
32	Table 4-55: Production and Consumption of Silicon Carbide (Metric Tons)	4-42
33 34	Table 4-56: Tier 2 Quantitative Uncertainty Estimates for CH ₄ and CO ₂ Emissions from Silicon Carbide Prod and Consumption (Tg CO ₂ Eq. and Percent)	ection 4-42
35	Table 4-57: N ₂ O Emissions from Nitric Acid Production (Tg CO ₂ Eq. and Gg)	4-43
36	Table 4-58: Nitric Acid Production (Gg)	4-44
37 38	Table 4-59: Tier 2 Quantitative Uncertainty Estimates for N_2O Emissions From Nitric Acid Production (Tg C Eq. and Percent)	O ₂ 4-44
39	Table 4-60: N ₂ O Emissions from Adipic Acid Production (Tg CO ₂ Eq. and Gg)	4-45
40	Table 4-61: Adipic Acid Production (Gg)	4-46

1 2		Tier 2 Quantitative Uncertainty Estimates for N ₂ O Emissions from Adipic Acid Production (Tg C Percent)	O ₂ 4-47
3	Table 4-63:	Emissions of HFCs and PFCs from ODS Substitutes (Tg CO ₂ Eq.)	4-48
4	Table 4-64:	Emissions of HFCs and PFCs from ODS Substitution (Mg)	4-48
5	Table 4-65:	Emissions of HFCs and PFCs from ODS Substitutes (Tg CO ₂ Eq.) by Sector	4-49
6 7		Tier 2 Quantitative Uncertainty Estimates for HFC and PFC Emissions from ODS Substitutes (Tg Percent)	g CO ₂ 4-51
8	Table 4-67:	HFC-23 Emissions from HCFC-22 Production (Tg CO ₂ Eq. and Gg)	4-52
9	Table 4-68:	HCFC-22 Production (Gg)	4-53
10 11		Tier 1 Quantitative Uncertainty Estimates for HFC-23 Emissions from HCFC-22 Production (Tg Percent)	CO ₂ 4-53
12 13	Table 4-70: 54	SF ₆ Emissions from Electric Power Systems and Electrical Equipment Manufacturers (Tg CO ₂ Ec	վ.) 4-
14	Table 4-71:	SF ₆ Emissions from Electric Power Systems and Electrical Equipment Manufacturers (Gg)	4-54
15 16		Tier 2 Quantitative Uncertainty Estimates for SF ₆ Emissions from Electrical Transmission and tion (Tg CO ₂ Eq. and Percent)	4-57
17	Table 4-73: I	PFC, HFC, and SF ₆ Emissions from Semiconductor Manufacture (Tg CO ₂ Eq.)	4-58
18	Table 4-74:	PFC, HFC, and SF ₆ Emissions from Semiconductor Manufacture (Mg)	4-58
19 20		Fier 2 Quantitative Uncertainty Estimates for HFC, PFC, and SF $_6$ Emissions from Semiconductor cture (Tg CO $_2$ Eq. and Percent)	4-62
21	Table 4-76:	CO ₂ Emissions from Aluminum Production (Tg CO ₂ Eq. and Gg)	4-63
22	Table 4-77:	PFC Emissions from Aluminum Production (Tg CO ₂ Eq.)	4-63
23	Table 4-78:	PFC Emissions from Aluminum Production (Gg)	4-64
24	Table 4-79:	Production of Primary Aluminum (Gg)	4-65
25 26		Tier 2 Quantitative Uncertainty Estimates for CO ₂ and PFC Emissions from Aluminum Productio and Percent)	n (Tg 4-66
27	Table 4-81:	SF ₆ Emissions from Magnesium Production and Processing (Tg CO ₂ Eq. and Gg)	4-67
28	Table 4-82:	SF ₆ Emission Factors (kg SF ₆ per metric ton of magnesium)	4-68
29 30		Tier 2 Quantitative Uncertainty Estimates for SF ₆ Emissions from Magnesium Production and ing (Tg CO ₂ Eq. and Percent)	4-69
31	Table 4-84:	2006 Potential and Actual Emissions of HFCs, PFCs, and SF ₆ from Selected Sources (Tg CO ₂ Eq	.)4-71
32	Table 4-85:	NO _x , CO, and NMVOC Emissions from Industrial Processes (Gg)	4-71
33	Table 5-1: N	I ₂ O Emissions from Solvent and Other Product Use (Tg CO ₂ Eq. and Gg)	5-1
34	Table 5-2: N	I ₂ O Emissions from N ₂ O Product Usage (Tg CO ₂ Eq. and Gg)	5-1
35	Table 5-3: N	J ₂ O Production (Gg)	5-3
36 37	Table 5-4: T Percent)	Fier 2 Quantitative Uncertainty Estimates for N ₂ O Emissions From N ₂ O Product Usage (Tg CO ₂ E	q. and 5-3
38	Table 5-5: E	missions of NO _x , CO, and NMVOC from Solvent Use (Gg)	5-4
39	Table 6-1: E	missions from Agriculture (Tg CO ₂ Eq.)	6-1
40	Table 6-2: E	missions from Agriculture (Gg)	6-1

1	Table 6-3: CH ₄ Emissions from Enteric Fermentation (Tg CO ₂ Eq.)	6-3
2	Table 6-4: CH ₄ Emissions from Enteric Fermentation (Gg)	6-3
3 4	Table 6-5: Quantitative Uncertainty Estimates for CH ₄ Emissions from Enteric Fermentation (Tg CO ₂ Eq. Percent)	and 6-5
5	Table 6-6: CH ₄ and N ₂ O Emissions from Manure Management (Tg CO ₂ Eq.)	6-9
6	Table 6-7: CH ₄ and N ₂ O Emissions from Manure Management (Gg)	6-9
7 8	Table 6-8: Tier 2 Quantitative Uncertainty Estimates for CH ₄ and N ₂ O (Direct and Indirect) Emissions from Management (Tg CO ₂ Eq. and Percent)	m Manure 6-11
9	Table 6-9: CH ₄ Emissions from Rice Cultivation (Tg CO ₂ Eq.)	6-14
10	Table 6-10: CH ₄ Emissions from Rice Cultivation (Gg)	6-15
11	Table 6-11: Rice Areas Harvested (Hectares)	6-16
12 13	Table 6-12: Tier 2 Quantitative Uncertainty Estimates for CH ₄ Emissions from Rice Cultivation (Tg CO ₂ Percent)	Eq. and 6-17
14	Table 6-13: N ₂ O Emissions from Agricultural Soils (Tg CO ₂ Eq.)*	6-18
15	Table 6-14: N ₂ O Emissions from Agricultural Soils (Gg N ₂ O)*	6-19
16	Table 6-15: Direct N ₂ O Emissions from Agricultural Soils by Land-Use and N Input (Tg CO ₂ Eq.)*	6-19
17	Table 6-16: Indirect N ₂ O Emissions from all Land Use Types (Tg CO ₂ Eq.)	6-20
18 19	Table 6-17: Quantitative Uncertainty Estimates of N ₂ O Emissions from Agricultural Soil Management in 2 CO ₂ Eq. and Percent)*	2006 (Tg 6-29
20	Table 6-18: CH ₄ and N ₂ O Emissions from Field Burning of Agricultural Residues (Tg CO ₂ Eq.)	6-31
21	Table 6-19: CH ₄ , N ₂ O, CO, and NO _x Emissions from Field Burning of Agricultural Residues (Gg)	6-31
22	Table 6-20: Agricultural Crop Production (Gg of Product)	6-34
23	Table 6-21: Percent of Rice Area Burned by State	6-34
24	Table 6-22: Key Assumptions for Estimating Emissions from Field Burning of Agricultural Residues	6-34
25	Table 6-23: Greenhouse Gas Emission Ratios	6-34
26 27	Table 6-24: Tier 2 Uncertainty Estimates for CH_4 and N_2O Emissions from Field Burning of Agricultural (Tg CO_2 Eq. and Percent)	Residues 6-35
28	Table 7-1: Net CO ₂ Flux from Land Use, Land-Use Change, and Forestry (Tg CO ₂ Eq.)	7-1
29	Table 7-2: Net CO ₂ Flux from Land Use, Land-Use Change, and Forestry (Tg C)	7-2
30	Table 7-3: Emissions from Land Use, Land-Use Change, and Forestry (Tg CO ₂ Eq.)	7-3
31	Table 7-4: Non-CO ₂ Emissions from Land Use, Land-Use Change, and Forestry (Gg)	7-3
32	Table 7-5. Land use areas during the inventory reporting period (millions of hectares)	7-4
33	Table 7-6. Net Annual Changes in C Stocks (Tg CO ₂ /yr) in Forest and Harvested Wood Pools	7-13
34	Table 7-7. Net Annual Changes in C Stocks (Tg C/yr) in Forest and Harvested Wood Pools	7-14
35	Table 7-8. Forest area (1000 ha) and C Stocks (Tg C) in Forest and Harvested Wood Pools	7-14
36	Table 7-9: Estimates of CO ₂ (Tg/yr) emissions for the lower 48 states and Alaska ¹	7-15
37 38	Table 7-10: Tier 2 Quantitative Uncertainty Estimates for Net CO ₂ Flux from Forest Land Remaining Fore Changes in Forest C Stocks (Tg CO ₂ Eq. and Percent)	est Land: 7-19

1	Table 7-11: Estimated Non-CO ₂ Emissions from Forest Fires (Tg CO ₂ Eq.) for U.S. forests ¹	7-21
2	Table 7-12: Estimated Non- CO ₂ Emissions from Forest Fires (Gg Gas) for U.S. forests ¹	7-21
3	Table 7-13: Estimated Carbon Released from Forest Fires for U.S. Forests	7-21
4 5	Table 7-14: Tier 2 Quantitative Uncertainty Estimates of Non-CO ₂ Emissions from Forest Fires in <i>Forest Land Remaining Forest Land</i> (Tg CO ₂ Eq. and Percent)	d 7-22
6	Table 7-15. N ₂ O Fluxes from Soils in Forest Land Remaining Forest Land (Tg CO ₂ Eq. and Gg)	7-22
7 8	Table 7-16: Tier 2 Quantitative Uncertainty Estimates of N ₂ O Fluxes from Soils in <i>Forest Land Remaining Fo Land</i> (Tg CO ₂ Eq. and Percent)	rest 7-23
9	Table 7-17: Net CO ₂ Flux from Soil C Stock Changes in Cropland Remaining Cropland (Tg CO ₂ Eq.)	7-25
10	Table 7-18: Net CO ₂ Flux from Soil C Stock Changes in Cropland Remaining Cropland (Tg C)	7-25
11 12	Table 7-19: Quantitative Uncertainty Estimates for C Stock Changes occurring within <i>Cropland Remaining Cropland</i> (Tg CO ₂ Eq. and Percent)	7-31
13	Table 7-20: Emissions from Liming of Agricultural Soils (Tg CO ₂ Eq.)	7-32
14	Table 7-21: Emissions from Liming of Agricultural Soils (Tg C)	7-32
15	Table 7-22: Applied Minerals (Million Metric Tons)	7-33
16 17	Table 7-23: Tier 2 Quantitative Uncertainty Estimates for CO ₂ Emissions from Liming of Agricultural Soils (T CO ₂ Eq. and Percent)	Гg 7-34
18	Table 7-24: CO ₂ Emissions from Urea Fertilization in <i>Cropland Remaining Cropland</i> (Tg CO ₂ Eq.)	7-35
19	Table 7-25: CO ₂ Emissions from Urea Fertilization in Cropland Remaining Cropland (Tg C)	7-35
20	Table 7-26: Applied Urea (Million Metric Tons)	7-35
21 22	Table 7-27: Quantitative Uncertainty Estimates for CO ₂ Emissions from Urea Fertilization (Tg CO ₂ Eq. and Percent)	7-36
23	Table 7-28: Net CO ₂ Flux from Soil C Stock Changes in Land Converted to Cropland (Tg CO ₂ Eq.)	7-37
24	Table 7-29: Net CO ₂ Flux from Soil C Stock Changes in Land Converted to Cropland (Tg C)	7-37
25 26	Table 7-30: Quantitative Uncertainty Estimates ¹ for C Stock Changes occurring within <i>Land Converted to Cropland</i> (Tg CO ₂ Eq. and Percent)	7-39
27	Table 7-31: Net CO ₂ Flux from Soil C Stock Changes in Grassland Remaining Grassland (Tg CO ₂ Eq.)	7-40
28	Table 7-32: Net CO2 Flux from Soil C Stock Changes in Grassland Remaining Grassland (Tg C)	7-40
29 30	Table 7-33: Quantitative Uncertainty Estimates ¹ for C Stock Changes occurring within <i>Grassland Remaining Grassland</i> (Tg CO2 Eq. and Percent)	7-43
31	Table 7-34: Net CO2 Flux from Soil C Stock Changes for Land Converted to Grassland (Tg CO2 Eq.)	7-45
32	Table 7-35: Net CO2 Flux from Soil C Stock Changes for Land Converted to Grassland (Tg C)	7-45
33 34	Table 7-36: Quantitative Uncertainty Estimates ¹ for C Stock Changes occurring within <i>Land Converted to Grassland</i> (Tg CO ₂ Eq. and Percent)	7-47
35	Table 7-37: Net C Flux from Urban Trees (Tg CO ₂ Eq. and Tg C)	7-48
36 37	Table 7-38: C Stocks (Metric Tons C), Annual C Sequestration (Metric Tons C/yr), Tree Cover (Percent), and Annual C Sequestration per Area of Tree Cover (kg C/m²cover-yr) for 15 U.S. Cities	ł 7-50
38 39	Table 7-39: Tier 2 Quantitative Uncertainty Estimates for Net C Flux from Changes in C Stocks in Urban Tre CO ₂ Eq. and Percent)	es (Tg 7-51
40	Table 7-40: N ₂ O Fluxes from Soils in Settlements Remaining Settlements (Tg CO ₂ Eq. and Gg)	7-52

1 2	Table 7-41: Tier 2 Quantitative Uncertainty Estimates of N ₂ O Emissions from Soils in <i>Settlements Remainin Settlements</i> (Tg CO ₂ Eq. and Percent)	ng 7-53
3	Table 7-42: Net Changes in Yard Trimming and Food Scrap Stocks in Landfills (Tg CO ₂ Eq.)	7-54
4	Table 7-43: Net Changes in Yard Trimming and Food Scrap Stocks in Landfills (Tg C)	7-54
5 6	Table 7-44: Moisture Content (%), C Storage Factor, Proportion of Initial C Sequestered (%), Initial C Cont (%), and Half-Life (years) for Landfilled Yard Trimmings and Food Scraps in Landfills	ent 7-57
7	Table 7-45: C Stocks in Yard Trimmings and Food Scraps in Landfills (Tg C)	7-57
8 9	Table 7-46: Tier 2 Quantitative Uncertainty Estimates for CO_2 Flux from Yard Trimmings and Food Scraps Landfills (Tg CO_2 Eq. and Percent)	in 7-58
10	Table 8-1: Emissions from Waste (Tg CO ₂ Eq.)	8-1
11	Table 8-2: Emissions from Waste (Gg)	8-1
12	Table 8-3: CH ₄ Emissions from Landfills (Tg CO ₂ Eq.)	8-2
13	Table 8-4: CH ₄ Emissions from Landfills (Gg)	8-3
14 15	Table 8-5. Tier 2 Quantitative Uncertainty Estimates for CH ₄ Emissions from Landfills (Tg CO ₂ Eq. and Pe 5	rcent)8-
16	Table 8-6. CH ₄ and N ₂ O Emissions from Domestic and Industrial Wastewater Treatment (Tg CO ₂ Eq.)	8-7
17	Table 8-7. CH ₄ and N ₂ O Emissions from Domestic and Industrial Wastewater Treatment (Gg)	8-7
18	Table 8-8. U.S. Population (Millions) and Domestic Wastewater BOD ₅ Produced (Gg)	8-9
19	Table 8-9. U.S. Pulp and Paper, Meat and Poultry, and Vegetables, Fruits and Juices Production (Tg)	8-10
20 21	Table 8-10. Wastewater Flow (m³/ton) and BOD Production (g/L) for U.S. Vegetables, Fruits and Juices Production	8-12
22	Table 8-11. U.S. Population (Millions) and Average Protein Intake [kg/(person-year)]	8-14
23 24	Table 8-12. Tier 2 Quantitative Uncertainty Estimates for CH ₄ Emissions from Wastewater Treatment (Tg C and Percent)	O ₂ Eq. 8-15
25	Table 8-13: CH ₄ and N ₂ O Emissions from Composting (Tg CO ₂ Eq.)	8-17
26	Table 8-14: CH ₄ and N ₂ O Emissions from Composting (Gg)	8-17
27	Table 8-15: U.S. Waste Composted (Gg)	8-18
28 29	Table 8-16: Tier 1 Quantitative Uncertainty Estimates for Emissions from Composting (Tg CO ₂ Eq. and Pe 18	rcent)8-
30	Table 8-17: Emissions of NO _x , CO, and NMVOC from Waste (Gg)	8-19
31	Table 10-1: Revisions to U.S. Greenhouse Gas Emissions (Tg CO ₂ Eq.)	10-3
32 33	Table 10-2: Revisions to Net Flux of CO ₂ to the Atmosphere from Land Use, Land-Use Change, and Forest CO ₂ Eq.)	ry (Tg 10-4
34		
35	Figures	
36	Figure ES-1: U.S. Greenhouse Gas Emissions by Gas	4
37	Figure ES-2: Annual Percent Change in U.S. Greenhouse Gas Emissions	4

1	Figure ES-3: Cumulative Change in U.S. Greenhouse Gas Emissions Relative to 1990	4
2	Figure ES-4: 2006 Greenhouse Gas Emissions by Gas (percents based on Tg CO ₂ Eq.)	ϵ
3	Figure ES-5: 2006 Sources of CO ₂	7
4	Figure ES-6: 2006 CO ₂ Emissions from Fossil Fuel Combustion by Sector and Fuel Type	7
5	Figure ES-7: 2006 End-Use Sector Emissions of CO ₂ from Fossil Fuel Combustion	7
6	Figure ES-8: 2006 Sources of CH ₄	9
7	Figure ES-9: 2006 Sources of N ₂ O	10
8	Figure ES-10: 2006 Sources of HFCs, PFCs, and SF ₆	11
9	Figure ES-11: U.S. Greenhouse Gas Emissions and Sinks by Chapter/IPCC Sector	12
10	Figure ES-12: 2006 U.S. Energy Consumption by Energy Source	13
11	Figure ES-13: Emissions Allocated to Economic Sectors	16
12	Figure ES-14: Emissions with Electricity Distributed to Economic Sectors	17
13	Figure ES-15: U.S. Greenhouse Gas Emissions Per Capita and Per Dollar of Gross Domestic Product	18
14	Figure ES-16: 2006 Key Categories—Tier 1 Level Assessment	20
15	Figure 2-1: U.S. Greenhouse Gas Emissions by Gas	2-1
16	Figure 2-2: Annual Percent Change in U.S. Greenhouse Gas Emissions	2-1
17	Figure 2-3: Cumulative Change in U.S. Greenhouse Gas Emissions Relative to 1990	2-1
18	Figure 2-4: U.S. Greenhouse Gas Emissions by Chapter/IPCC Sector	2-7
19	Figure 2-5: 2006 Energy Chapter Greenhouse Gas Sources	2-8
20	Figure 2-6: 2006 U.S. Fossil C Flows (Tg CO ₂ Eq.)	2-8
21	Figure 2-7: 2006 CO ₂ Emissions from Fossil Fuel Combustion by Sector and Fuel Type	2-10
22	Figure 2-8: 2006 End-Use Sector Emissions of CO ₂ from Fossil Fuel Combustion	2-10
23	Figure 2-9: 2006 Industrial Processes Chapter Greenhouse Gas Sources	2-11
24	Figure 2-10: 2006 Agriculture Chapter Greenhouse Gas Sources	2-13
25	Figure 2-11: 2006 Waste Chapter Greenhouse Gas Sources	2-16
26	Figure 2-12: Emissions Allocated to Economic Sectors	2-17
27	Figure 2-13: Emissions with Electricity Distributed to Economic Sectors	2-20
28	Figure 2-14: U.S. Greenhouse Gas Emissions Per Capita and Per Dollar of Gross Domestic Product	2-26
29	Figure 3-1: 2006 Energy Chapter Greenhouse Gas Sources	3-1
30	Figure 3-2: 2006 U.S. Fossil Carbon Flows (Tg CO ₂ Eq.)	3-1
31	Figure 3-3: 2006 U.S. Energy Consumption by Energy Source	3-5
32	Figure 3-4: U.S. Energy Consumption (Quadrillion Btu)	3-5
33	Figure 3-5: 2006 CO ₂ Emissions from Fossil Fuel Combustion by Sector and Fuel Type	3-5
34	Figure 3-6: Annual Deviations from Normal Heating Degree Days for the United States (1950–2006)	3-6
35	Figure 3-7: Annual Deviations from Normal Cooling Degree Days for the United States (1950–2006)	3-6
36 37	Figure 3-8: Aggregate Nuclear and Hydroelectric Power Plant Capacity Factors in the United States (197	4–2006)3-

I	Figure 3-9: 2006 End-Use Sector Emissions of CO ₂ from Fossil Fuel Combustion	3-7
2	Figure 3-10: Sales-Weighted Fuel Economy of New Passenger Cars and Light-Duty Trucks, 1990–2006	3-8
3	Figure 3-11: Sales of New Passenger Cars and Light-Duty Trucks, 1990–2006	3-8
4	Figure 3-12: Industrial Production Indices (Index 2002=100)	3-10
5	Figure 3-13: Electricity Generation Retail Sales by End-Use Sector	3-11
6	Figure 3-14: U.S. Energy Consumption and Energy-Related CO2 Emissions Per Capita and Per Dollar GDP	3-16
7	Figure 3-15: Mobile Source CH ₄ and N ₂ O Emissions	3-29
8	Figure 4-1: 2006 Industrial Processes Chapter Greenhouse Gas Sources	4-1
9	Figure 6-1: 2006 Agriculture Chapter Greenhouse Gas Emission Sources	6-1
10	Figure 6-2: Agricultural Sources and Pathways of N that Result in N ₂ O Emissions	6-18
11	Figure 6-3: Major Crops, Average Annual Direct N ₂ O Emissions, 1990–2006 (Tg CO ₂ Eq./state/year)	6-20
12	Figure 6-4: Grasslands, Average Annual Direct N ₂ O Emissions, 1990–2006 (Tg CO ₂ Eq./state/year)	6-20
13 14	Figure 6-5: Major Crops, Average Annual N Losses Leading to Indirect N ₂ O Emissions, 1990–2006 (Tg CO ₂ Eq./state/year)	6-21
15 16	Figure 6-6: Grasslands, Average Annual N Losses Leading to Indirect N ₂ O Emissions, 1990–2006 (Tg CO ₂ Eq./state/year)	6-21
17 18	Figure 6-7: Comparison of measured emissions at field sites with modeled emissions using the DAYCENT simulation model	6-29
19 20	Figure 7-1. Regional variation in area of Forest Land, Cropland, Grassland, Wetlands and Settlements within t United States during 2006 (million hectares)	he 7-5
21	Figure 7-2: Forest Sector Carbon Pools and Flows	7-12
22	Figure 7-3: Estimates of Net Annual Changes in C Stocks for Major C Pools	7-15
23	Figure 7-4: Average C Density in the Forest Tree Pool in the Conterminous United States During 2006	7-15
24	Figure 7-5: Net C Stock Change for Mineral Soils in Cropland Remaining Cropland, 2006	7-26
25	Figure 7-6: Net C Stock Change for Organic Soils in Cropland Remaining Cropland, 2006	7-26
26	Figure 7-7: Net C Stock Change for Mineral Soils in Land Converted to Cropland, 2006	7-37
27	Figure 7-8: Net C Stock Change for Organic Soils in Land Converted to Cropland, 2006	7-38
28	Figure 7-9: Net Soil C Stock Change for Mineral Soils in Grassland Remaining Grassland, 2006	7-41
29	Figure 7-10: Net Soil C Stock Change for Organic Soils in Grassland Remaining Grassland, 2006	7-41
30	Figure 7-11: Net Soil C Stock Change for Mineral Soils in Land Converted to Grassland, 2006	7-45
31	Figure 7-12: Net Soil C Stock Change for Organic Soils in Land Converted to Grassland, 2006	7-45
32	Figure 8-1: 2006 Waste Chapter Greenhouse Gas Sources	8-1
33		
34	Boxes	
35	Box ES- 1: Recalculations of Inventory Estimates	ES-1
36	Box ES-2: Recent Trends in Various U.S. Greenhouse Gas Emissions-Related Data	ES-17
37	Box 1-1: The IPCC Third Assessment Report and Global Warming Potentials	1-8

1	Box 1-2: IPCC Reference Approach	1-11
2	Box 2-1: Methodology for Aggregating Emissions by Economic Sector	2-24
3	Box 2-2: Recent Trends in Various U.S. Greenhouse Gas Emissions-Related Data	2-26
4	Box 2-3: Sources and Effects of Sulfur Dioxide	2-28
5	Box 3-1: Weather and Non-Fossil Energy Effects on CO ₂ from Fossil Fuel Combustion Trends	3-5
6	Box 3-2: Carbon Intensity of U.S. Energy Consumption	3-14
7	Box 3-3. Carbon Dioxide Transport, Injection, and Geological Storage	3-52
8	Box 4-1: Potential Emission Estimates of HFCs, PFCs, and SF ₆	4-70
9	Box 6-1. Tier 1 vs. Tier 3 Approach for Estimating N ₂ O Emissions	6-22
10	Box 6-2: Comparsion of Tier 2 U.S. Inventory Approach and IPCC (2006) Default Approach	6-32
11	Box 7-1: CO ₂ Emissions from Forest Fires	7-15
12	Box 7-2: Tier 3 Inventory for Soil C Stocks compared to Tier 1 or 2 Approaches	7-27
13	Box 8-1: Biogenic Emissions and Sinks of Carbon	8-6